

I CLAIM:

1. A device for transferring electric currents, comprising:
a slip ring unit comprising a rotor with connecting wires and a
stator; and

5 a printed circuit board fastened to said rotor, wherein said
printed circuit board comprises connectors in electrical contact with said connecting
wires, wherein a torque required for rotary movement between said rotor and said
stator is introduced via said printed circuit board.

2. The device in accordance with claim 1, wherein said connecting
10 wires transmit current and are arranged in a geometrically determined pattern out of
said rotor, and said printed circuit board comprises connecting points that are
connected with said connecting wires and that are arranged in a pattern that is in
accordance with said geometrically determined pattern.

15 3. The device in accordance with claim 1, wherein an outer
portion of said slip ring unit is used as said stator and an inner portion of said slip ring
unit is used as said rotor.

20 4. The device in accordance with claim 2, wherein, starting at said
connecting points, one or several of said conductors over at least a partial area of said
printed circuit board are directed radially away from an axis of rotation of said slip
ring unit.

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5. The device in accordance with claim 2, wherein said geometrically determined pattern of said connecting wires is designed in such a way that said printed circuit board can only be attached in a desired position.

5 6. The device of claim 1, further comprising a remote-controlled object that transmits and/or receives electrical currents via said slip ring unit.

7. The device of claim 6, wherein said remote-controlled object comprises a camera.

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8. A device for transferring electric currents, comprising:
a slip ring unit comprising a rotor with connecting wires and a
stator; and
a printed circuit board fastened to said rotor, said printed circuit

15 board comprising:

connectors in electrical contact with said connecting
wires of said rotor; and

connecting points;

wherein a torque required for rotary movement between said rotor and
20 said stator is introduced via said printed circuit board, wherein an outer portion of said slip ring unit is used as said stator and an inner portion of said slip ring unit is used as said rotor and several ones of said connecting wires are conducted out of said rotor for transmitting current in accordance with a geometrically determined pattern, and said

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connecting points with said connecting wires are arranged in a pattern that is in accordance with said geometrically determined pattern.

9. A device for transferring electric currents, comprising:

5 a slip ring unit comprising a stator with connecting wires and a rotor; and

a printed circuit board fastened to said stator and comprising connectors that are in electrical contact with said connecting wires of said stator, wherein said printed circuit board is used as a torque support.

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10. The device in accordance with claim 9, wherein several ones of said connecting wires are conducted out of said stator in accordance with a geometrically determined pattern, and said connecting points with said connecting wires on said printed circuit board are arranged in a pattern that is in accordance with
15 said geometrically determined pattern.

11. The device in accordance with claim 9, wherein an outer portion of said slip ring unit is used as said stator and an inner portion of said slip ring unit is used as said rotor.

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12. The device in accordance with claim 10, wherein, starting at said connecting points, one or several of said conductors over at least a partial area of said printed circuit board are directed radially away from an axis of rotation of said

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slip ring unit.

13. The device in accordance with claim 10, wherein said
geometrically determined pattern of said connecting wires is designed in such a way
5 that said printed circuit board can only be attached in a desired position.

14. The device of claim 9, further comprising a remote-controlled
object that transmits and/or receives electrical currents via said slip ring unit.

10 15. The device of claim 14, wherein said remote-controlled object
comprises a camera.

16. A device for transferring electric currents, comprising:
a slip ring unit comprising a stator with connecting wires and a
15 rotor; and

a printed circuit board fastened to said stator, said printed
circuit board comprising:

connectors that are in electrical contact with said
connecting wires of said stator; and

20 connecting points, wherein said printed circuit board is
used as a torque support;

wherein an outer portion of said slip ring unit is used as said
stator and an inner portion of said slip ring unit is used as said rotor and several ones

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